WHAT IS CLAIMED IS:

1. An optical transmission system for outputting a duobinary carrier-suppressed return- to-zero (CS-RZ) signal, the system comprising:

a light source that outputs an optical carrier wave;

a duobinary optical signal generator that receives a non-return to zero (NRZ) signal, modulates the optical carrier wave to an optical signal according to the NRZ signal, and outputs the modulated optical signal; and

a CS-RZ signal generator that converts the NRZ signal to an RZ signal in synchronization with a clock.

2. The optical transmission system as set forth in claim 1, wherein the duobinary optical signal generator comprises an interferometer-type optical intensity modulator.

3. The optical transmission system as set forth in claim 2, wherein the interferometer-type optical intensity modulator is a Mach-Zehnder optical intensity modulator having a Z-cut structure having dual arms.

4. The optical transmission system as set forth in claim 3, wherein characteristics of the output signal vary depending on an applied voltage of the NRZ signal.

5. The optical transmission system as set forth in claim 2, wherein the interferometer-type optical intensity modulator is a Mach-Zehnder interferometer-type optical intensity modulator having an X-cut structure having a single arm.

6. The optical transmission system as set forth in claim 5, wherein characteristics of the output signal vary depending on an applied voltage of the NRZ signal.

7. The optical transmission system as set forth in claim 1, wherein said duobinary optical signal generator comprises:

a code converter that converts the NRZ signal to a duobinary signal;

a device that receives the duobinary signal, and generates a modulator driving signal;

an interferometer-type optical intensity modulator that receives the modulator driving signal and outputs a modulated optical signal, the modulated optical signal being obtained by changing a phase of the optical carrier wave and modulating an optical intensity thereof; and

a wide bandpass filter having a predetermined bandwidth that receives the modulated optical signal from the optical intensity modulator, filters the received optical signal according to the predetermined bandwidth, and outputs a duobinary optical signal.

8. The optical transmission system as set forth in claim 7, wherein the interferometer-type optical intensity modulator is a Mach-Zehnder optical intensity

modulator having a Z-cut structure having dual arms.

9. The optical transmission system as set forth in claim 8, wherein characteristics of the output signal vary depending on an applied voltage of the NRZ signal.

10. The optical transmission system as set forth in claim 8, wherein characteristics of the output signal vary depending on the bandwidth of the wide bandpass filter.

11. The optical transmission system as set forth in claim 7, wherein the interferometer-type optical intensity modulator is a Mach-Zehnder optical intensity modulator having an X-cut structure having a single arm.

12. The optical transmission system as set forth in claim 11, wherein characteristics of the output signal vary depending on an applied voltage of the NRZ signal.

13. The optical transmission system as set forth in claim 11, wherein characteristics of the output signal vary depending on the bandwidth of the wide bandpass filter.

14. The optical transmission system as set forth in claim 7, wherein characteristics of the output signal vary depending on an applied voltage of the NRZ signal.

15. The optical transmission system as set forth in claim 7, wherein characteristics of the output signal vary depending on the bandwidth of the wide bandpass filter.

16. An optical transmission system for outputting a duobinary carrier-suppressed return-to-zero (CS-RZ) signal, the system comprising:

a light source to output an optical carrier wave;

a CS-RZ signal generator to receive the optical carrier wave and generate a CS-RZ signal therefrom in synchronization with a clock;

a duobinary optical signal generator that receives an NRZ (Non-Return to Zero) signal and the CS-RZ signal and outputs a modulated optical signal,

wherein, said duobinary optical signal generator comprises:

a code converter that converts the NRZ signal to a duobinary signal;

a device that receives the duobinary signal and generates a modulator driving signal;

a Mach-Zehnder interferometer-type optical intensity modulator that receives the modulator driving signal, the CS-ZR signal and outputs a modulated optical signal, the modulated optical signal being obtained by changing a phase of the CS-ZR signal and modulating an optical intensity thereof; and

a wide bandpass filter having a predetermined bandwidth that receives the modulated optical signal from the optical intensity modulator and filters the received optical signal according to the predetermined bandwidth, and outputs a duobinary optical signal.

17. The optical transmission system as set forth in claim 16, wherein the Mach-Zehnder interferometer-type optical intensity modulator is an optical intensity modulator having a Z-cut structure having dual arms.

18. The optical transmission system as set forth in claim 16, wherein Mach-Zehnder interferometer-type optical intensity modulator is an optical intensity modulator having a X-cut structure having a single arm.

19. The optical transmission system as set forth in claim 16, wherein characteristics of the output signal vary depending on an applied voltage of the NRZ signal.

20. The optical transmission system as set forth in claim 16, wherein characteristics of the output signal vary depending on the bandwidth of the wide bandpass filter.